

# Plastic Surgery Department

## Leech Therapy (Hirudotherapy)

### Background

Medicinal leeches have been widely used throughout history from ancient times through to the 20<sup>th</sup> century when the advances of modern medicine brought their use to an end. They were used for bloodletting, which was believed to be a cure for a wide range of ailments including headaches, gout, bruising, brain disorders and much more.

The advances in plastic and reconstructive surgery and a clearer understanding of the beneficial chemical compounds found in leeches has prompted a revival in the effective use of leeches in these areas.

### What is leech therapy?

Modern leech therapy is used in areas such as microsurgery, plastic and reconstructive surgery, cardiovascular disease and dermatology.

Leeches are worm-like organisms which are applied to the wound area where their blood sucking action is used to increase circulation, improve blood flow and speed healing.

The leech produces a number of beneficial chemical compounds useful in medicine including:

- A local anaesthetic
- A blood thinner (anticoagulant) which open the blood vessels, increases the blood flow and prevents clotting
- A chemical to reduce swelling
- An antibiotic that kills other harmful bacteria and therefore aids wound healing

Leeches for medical use today are specifically bred under sterile conditions at a leech farm in Wales.



## **Why is it used in plastic surgery?**

Following tissue transfer or reattachment, the blood supply to that area may become thick and congested; this can cause loss of part or all of the reconstructed area. A leech or leeches may be placed in the area and by draining away small amounts of blood it is possible they can relieve the congestion, keeping the blood flow going.

## **What will happen?**

If an assessment of your wound suggests that you would benefit from this treatment, the process and the possible risks and complications will be discussed with you and you will be asked to give your verbal consent.

This is normally a very safe procedure but possible complications include:

- Local infection around the wound site. You will be closely observed for signs of this
- Prolonged bleeding. Your haemoglobin levels will be checked with regular blood tests. If your haemoglobin drops very low or you develop symptoms related to low haemoglobin, a blood transfusion may be recommended and discussed with you.
- Allergy

A doctor or nurse will apply the leech to the area and a member of staff may sit with you during this time if required.

The area can be covered so that you do not have to see the leeches if you prefer.

Each treatment usually takes between 30-60 minutes.

Bleeding continues when the leech or leeches are removed so that the blood vessels are constantly flowing free from congestion. It may be necessary to apply a leech or leeches several times a day to ensure that this flow continues.

While undergoing leech therapy you will be given a course of oral antibiotics to reduce the risk of infection.

If you need any further information about this treatment please speak to a member of the ward staff.

## Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact us on 024 7696 5225 and we will do our best to meet your needs.

The Trust operates a smoke free policy.

<b>Document History</b>	
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